

Abstract

System for the extrapolation of a glucose concentration comprising a data input device (EI) for entering administered insulin doses (I_i) and their times of administration (t_i), a data input device (EK) for entering the carbohydrates (KH_j) consumed or to be consumed, a unit (GM) for determining an actual glucose concentration (G_a) at a point in time (t_a) in a patient's bodily fluid, a memory unit (M) for storing the insulin doses that have been administered, their times of administration, carbohydrate units consumed and their times of consumption, an evaluation unit (CPU) for evaluation of the data stored in the memory unit, and for the extrapolation of a glucose concentration at a point in time t_p , whereby t_p is after t_a , and in which the extrapolation comprises the following steps:

Determination of the portion (I_{wirk}) of insulin doses that become effective between t_a and t_p ;

Determination of the portion of consumed carbohydrate units KH_{wirk} , that become effective between t_a and t_p ;

Determination of an extrapolated glucose concentration G_p at the point in time t_p with consideration for I_{wirk} and KH_{wirk} .

The invention also provides a method for the extrapolation a glucose concentration and a system for the determination of insulin doses to be administered.